

### The State of New Hampshire Department of Environmental Services

Michael P. Nolin Commissioner

### AGGREGATED PRECIPITATION DATA for N.H. DROUGHT MANAGEMENT AREAS

			Deviation	
	Actual	Normal	from	Percent
	Rainfall	Rainfall	Normal	of
_	(inches)	(inches)	(inches)	Normal
Coastal Drainage: R	ockingham, Straff	ord counties		
four month	16.60	12.94	3.66	128%
six month	26.52	19.66	6.86	135%
nine month	35.50	26.72	8.78	133%
twelve month	46.84	37.78	9.06	124%
Southern Interior: Be	elknap, Hillsboroug	gh, Merrimack count	ies	
four month	14.99	13.44	1.55	112%
six month	23.42	20.23	3.19	116%
nine month	31.17	27.31	3.86	114%
twelve month	40.64	38.27	2.38	106%
South Western: Che	shire, Sullivan cou	nties		
four month	15.56	13.86	1.70	112%
six month	23.66	20.70	2.96	114%
nine month	30.55	27.64	2.91	111%
twelve month	39.26	38.38	0.88	102%
White Mountain: Co.	mall Craftan as und	:		
White Mountain: Car four month	17.42	14.30	3.12	122%
six month	24.05	20.64	3.41	117%
nine month	24.05 31.10	20.64 27.26	3.41 3.84	117%
twelve month	31.10	38.06	3.8 <del>4</del> 1.39	104%
tweive month	39.45	38.06	1.39	104%
North Country: Coos	county			
four month	20.15	15.44	4.71	131%
six month	27.74	21.24	6.50	131%
nine month	35.38	27.40	7.98	129%
twelve month	44.48	37.76	6.72	118%

four month period : May 2005 - August 2005 six month period : March 2005 - August 2005 nine month period : December 2004 - August 2005 twelve month period: September 2004 - August 2005

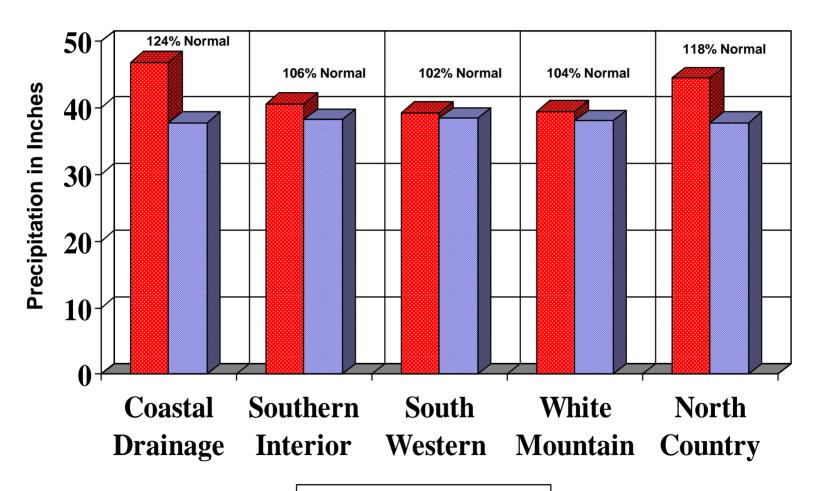
Source: Northeast River Forecast Center, NH Des Dam Bureau

P.O. Box 95, 29 Hazen Drive, Concord, New Hampshire 03302-0095

Telephone: (603) 271-3503 • Fax: (603) 271-7894 • TDD Access: Relay NH 1-800-735-2964

DES Web site: www.des.nh.gov

# TWELVE MONTH AGGREGATED PRECIPITATION DATA for N.H. DROUGHT MANAGEMENT AREAS from September 2004 through August 2005





#### **MONTHLY PRECIPITATION DATA FOR N.H COUNTIES**

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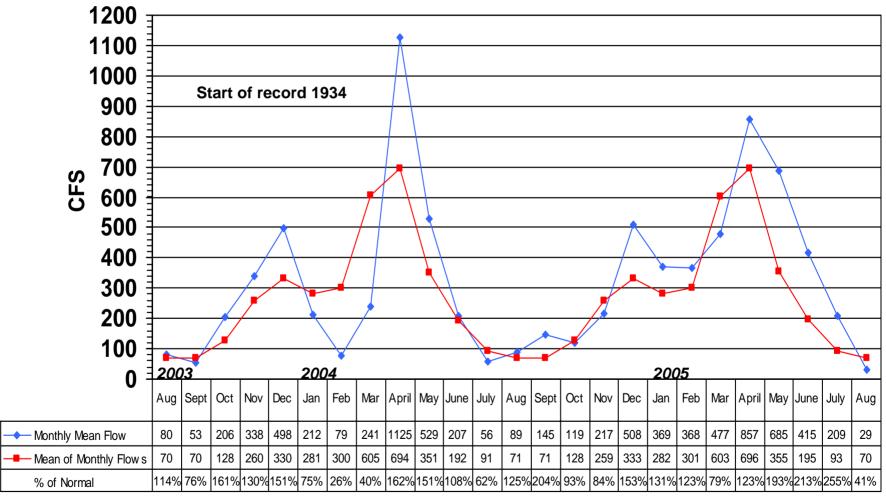
		2004				2005					Sen	rices	
		2004 SEPT	OCT	NOV	DEC	2005 JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG
Coastal drainage	<del></del>												
STRAFFORD	actual	5.09	2.05	4.32	4.15	3.89	1.00	4.72	5.45	7.21	4.24	3.24	1.98
	normal	3.32	3.48	4.12	3.76	3.12	0.00	3.20	3.40	3.28	3.04	3.12	3.28
	deviation	1.77	-1.43	0.20	0.39	0.77	1.00	1.52	2.05	3.93	1.20	0.12	-1.30
ROCKINGHAM	actual	5.49	2.16	3.58	4.05	3.86	1.00	4.62	5.05	6.28	3.79	3.13	3.33
	normal	3.40	3.56	4.24	3.92	3.32	0.00	3.40	3.44	3.40	3.12	3.20	3.44
	deviation	2.09	-1.40	-0.66	0.13	0.54	1.00	1.22	1.61	2.88	0.67	-0.07	-0.11
Average	actual	5.29	2.11	3.95	4.10	3.88	1.00	4.67	5.25	6.75	4.02	3.19	2.66
3 -	normal	3.36	3.52	4.18	3.84	3.22	0.00	3.30	3.42	3.34	3.08	3.16	3.36
	deviation	1.93	-1.42	-0.23	0.26	0.66	1.00	1.37	1.83	3.41	0.94	0.03	-0.71
Southern Interior													
HILLSBOROUG		5.53	1.75	3.13	4.00	3.16	1.00	4.11	5.08	5.56	2.62	3.59	3.13
	normal	3.60	3.72	4.32	4.16	3.60	0.00	3.88	3.56	3.52	3.36	3.32	3.68
	deviation	1.93	-1.97	-1.19	-0.16	-0.44	1.00	0.23	1.52	2.04	-0.74	0.27	-0.55
MERRIMACK	actual	5.20	1.83	2.97	4.06	3.10	1.00	3.72	5.16	5.06	3.87	3.64	2.52
	normal	3.36	3.44	4.00	3.92	3.16	0.00	3.40	3.36	3.36	3.20	3.28	3.44
	deviation	1.84	-1.61	-1.03	0.14	-0.06	1.00	0.32	1.80	1.70	0.67	0.36	-0.92
BELKNAP	actual	3.78	1.43	2.81	3.48	2.45	1.00	2.53	4.69	5.05	4.46	3.08	2.38
	normal	3.36	3.28	3.80	3.48	2.92	0.00	2.92	3.24	3.28	3.16	3.44	3.28
	deviation	0.42	-1.85	-0.99	0.00	-0.47	1.00	-0.39	1.45	1.77	1.30	-0.36	-0.90
Average	actual	4.84	1.67	2.97	3.85	2.90	1.00	3.45	4.98	5.22	3.65	3.44	2.68
rttolago	normal	3.44	3.48	4.04	3.85	3.23	0.00	3.40	3.39	3.39	3.24	3.35	3.47
	deviation	1.40	-1.81	-1.07	-0.01	-0.32	1.00	0.05	1.59	1.84	0.41	0.09	-0.79
South Western													
CHESHIRE	actual	4.21	1.12	2.41	3.60	2.10	1.00	3.98	4.68	3.99	5.34	5.05	2.99
oo	normal	3.52	3.36	3.84	3.76	3.28	0.00	3.48	3.40	3.44	3.44	3.28	3.68
	deviation	0.69	-2.24	-1.43	-0.16	-1.18	1.00	0.50	1.28	0.55	1.90	1.77	-0.69
SULLIVAN	actual	4.87	1.67	3.13	3.55	2.53	1.00	3.06	4.49	3.66	3.73	2.62	3.73
0022.77.11	normal	3.44	3.48	3.84	3.72	3.12	0.00	3.36	3.44	3.56	3.36	3.32	3.64
	deviation	1.43	-1.81	-0.71	-0.17	-0.59	1.00	-0.30	1.05	0.10	0.37	-0.70	0.09
Average	actual	4.54	1.40	2.77	3.58	2.32	1.00	3.52	4.59	3.83	4.54	3.84	3.36
,	normal	3.48	3.42	3.84	3.74	3.20	0.00	3.42	3.42	3.50	3.40	3.30	3.66
	deviation	1.06	-2.03	-1.07	-0.17	-0.89	1.00	0.10	1.17	0.33	1.14	0.54	-0.30
White Mountain													
GRAFTON	actual	2.90	1.44	3.23	3.37	2.37	1.00	2.53	3.78	3.97	5.42	4.00	4.76
0.0.1.1011	normal	3.48	3.48	3.76	3.64	2.92	0.00	3.04	3.24	3.56	3.48	3.84	3.64
	deviation	-0.58	-2.04	-0.53	-0.27	-0.55	1.00	-0.51	0.54	0.41	1.94	0.16	1.12
CARROLL	actual	3.71	1.62	3.81	4.00	2.35	1.00	2.13	4.83	5.26	4.09	3.74	3.59
O, II II IOLL	normal	3.44	3.52	3.92	3.68	3.00	0.00	3.08	3.32	3.48	3.44	3.68	3.48
	deviation	0.27	-1.90	-0.11	0.32	-0.65	1.00	-0.95	1.51	1.78	0.65	0.06	0.11
Average	actual	3.31	1.53	3.52	3.69	2.36	1.00	2.33	4.31	4.62	4.76	3.87	4.18
orago	normal	3.46	3.50	3.84	3.66	2.96	0.00	3.06	3.28	3.52	3.46	3.76	3.56
	deviation	-0.16	-1.97	-0.32	0.03	-0.60	1.00	-0.73	1.03	1.10	1.30	0.11	0.62
North Country	GOVIGUOTI	0.10	1.01	0.02	0.00	0.00	1.00	0.70	1.00	1.10	1.00	0.11	0.02
COOS	actual	2.88	1.97	4.25	4.03	2.61	1.00	3.14	4.45	4.82	5.59	4.99	4.75
0000	normal	3.40	3.48	4.25 3.48	4.03 3.44	2.72	0.00	2.76	3.04	3.32	5.59 4.16	4.99 3.96	4.75
	HOHHIAI	-0.52	-1.51	0.77	0.59	-0.11	1.00	0.38	1.41	1.50	1.43	1.03	0.75

Source: Northeast River Forecast Center, NH DES Dam Bureau

# LAMPREY RIVER near NEWMARKET NH Gage# 01073500



MONTHLY MEAN FLOW COMPARED TO MEAN OF MONTHLY FLOWS

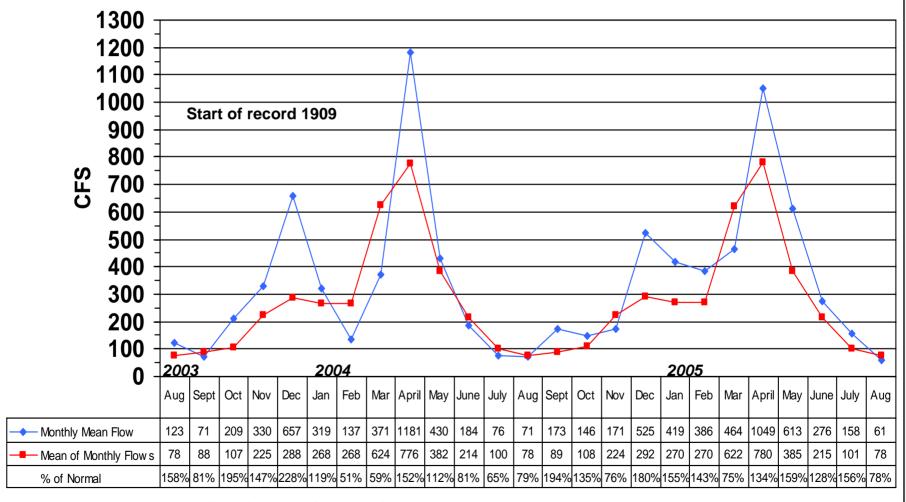


NH DES, Dam Bureau, Source: USGS (Ice: 01/03,12/04)

### SOUHEGAN RIVER at MERRIMACK NH Gage# 01094000



MONTHLY MEAN FLOW COMPARED TO MEAN OF MONTHLY FLOWS

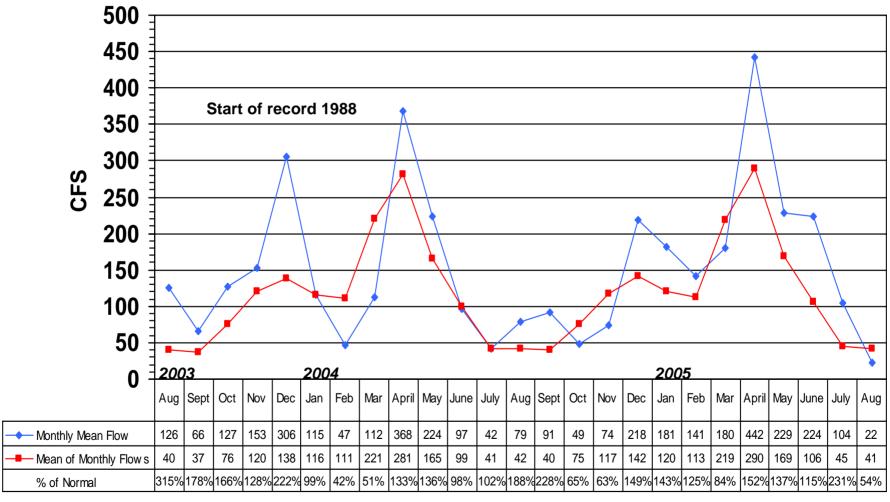


NH DES, Dam Bureau, Source: USGS (ice-01/03,02/03,03/03,01/04,02/04)

# SOUCOOK RIVER at PEMBROKE ROAD near CONCORD NH, Gage# 01089100



MONTHLY MEAN FLOW COMPARED TO MEAN OF MONTHLY FLOWS

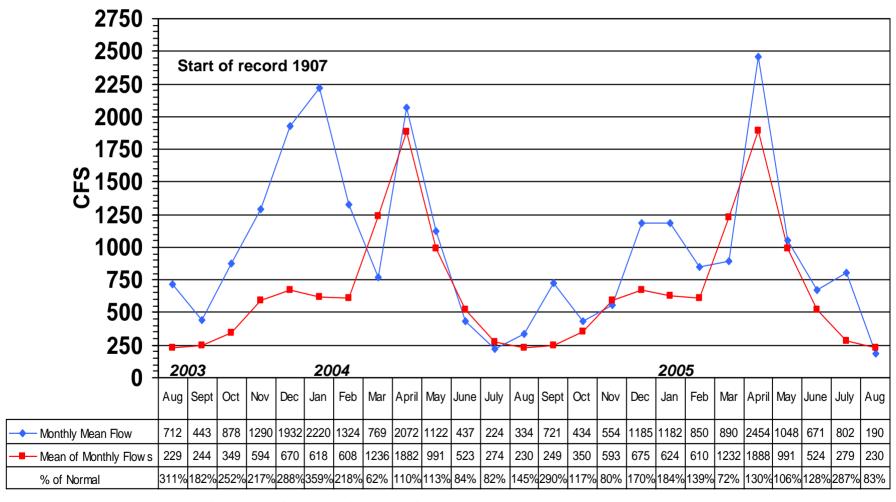


NH DES, Dam Bureau, Source: USGS (ice: 01/03, 02/03, 03/03, 01/04, 02/04, 03/04).

# ASHUELOT RIVER at HINSDALE NH Gage# 01161000



MONTHLY MEAN FLOW COMPARED TO MEAN OF MONTHLY FLOWS

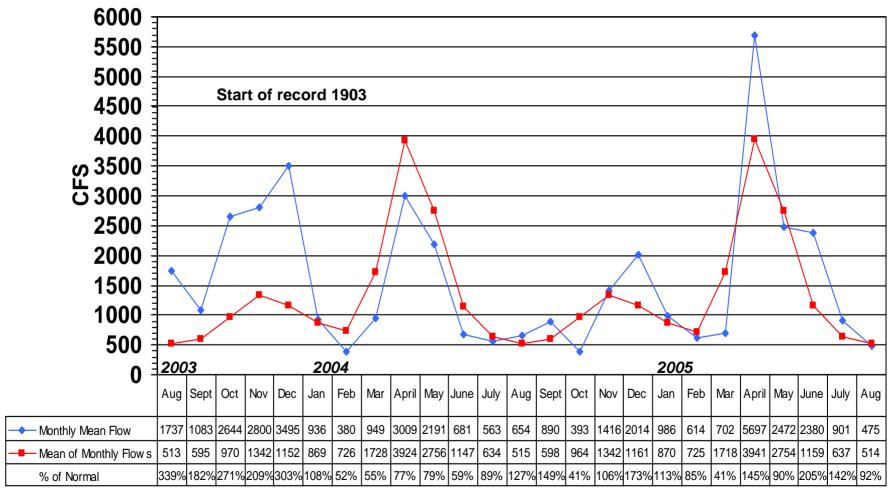


NH DES, Dam Bureau, Source: USGS (ice: 01/03,02/03,03/03,01/04,02/04,03/04)

# PEMIGEWASSET RIVER at PLYMOUTH NH Gage# 01076500



MONTHLY MEAN FLOW COMPARED TO MEAN OF MONTHLY FLOWS



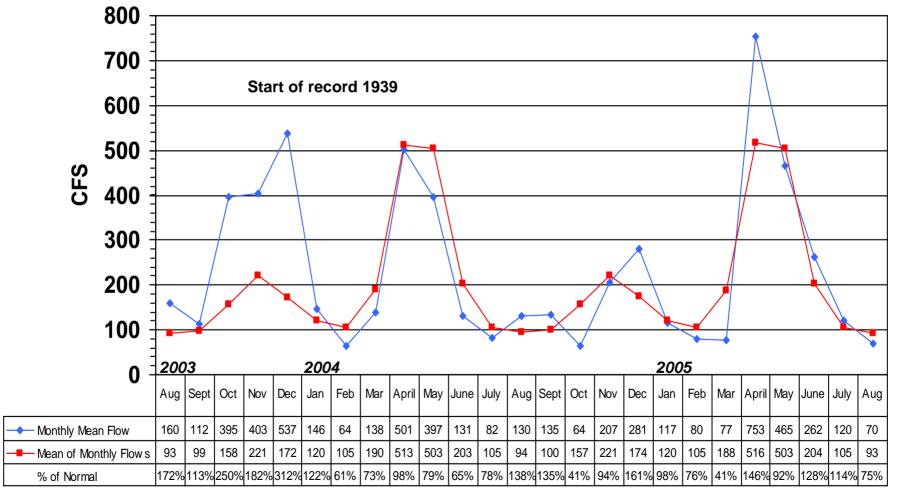
NH DES, Dam Bureau, Source: USGS (ice: 01/03,02/03,03/03,12/03,01/04,02/04,03/04,12/04)

# AMMONOOSUC RIVER at BETHLEHEM JUNCTION NH Gage# 01137500



MONTHLY MEAN FLOW COMPARED TO MEAN OF MONTHLY FLOWS

This station replaces gage# 01137000 which was discontinued by DES at the end of Sept 2004



NH DES, Dam Bureau, Source: USGS(ice:01/04,02/04,03/04,12/04)

#### STREAMFLOW DATA FOR SELECTED NH STATIONS AS OF SEPTEMBER 9, 2005

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(IN	Eλ.	EL BUSCONS
1	Enviro	nmental

Station		Est. Mean	Long Term	99%	7Q10	Lowest Period of Record	% of	Below 0.99	Below 7Q10	Below Record
number	Station name	Flow (cfs)	Median Flow	Flow (cfs)	Flow (cfs)	Daily Flow (cfs)	Median	Flow?	Flow?	Flow?
Androscoggi	n River Basin									
01052500 Dia	amond River near Wentworth Location, NH	88	57	22	16	6.8	154%	FALSE	FALSE	FALSE
01053500 Ar	ndroscoggin River at Errol, NH	1,770	1,715	500	451	0	103%	FALSE	FALSE	FALSE
01054000 Ar	ndroscoggin River near Gorham, NH	1,880	1,870	1300	1310	795	101%	FALSE	FALSE	FALSE
Saco River Ba										
	aco River near Conway, NH	289	206	105	97	66	140%	FALSE	FALSE	FALSE
01064801 BE	EARCAMP RIVER AT SOUTH TAMWORTH, NH	26	20.5	6	4.8	4.5	127%	FALSE	FALSE	FALSE
Piscataqua R										
	OCHECO RIVER NEAR ROCHESTER, NH	11	11.5			2.2	96%			FALSE
01073500 LA	AMPREY RIVER NEAR NEWMARKET, NH	14	28	7	5		50%	FALSE	FALSE	
Merrimack Ri										
	AST BRANCH PEMIGEWASSET RIVER AT LINCOLN, NH	145	88	55	49	46	165%	FALSE	FALSE	FALSE
	EMIGEWASSET RIVER AT WOODSTOCK, NH	248	114	65	56		218%	FALSE	FALSE	
	AKER RIVER NEAR RUMNEY, NH	93	36.5	18	15		255%	FALSE	FALSE	
	EMIGEWASSET RIVER AT PLYMOUTH, NH	545	284	130	118	45	192%	FALSE	FALSE	FALSE
01078000 SN	MITH RIVER NEAR BRISTOL, NH	18	16	7	6.2	2.7	113%	FALSE	FALSE	FALSE
01081000 W	INNIPESAUKEE RIVER AT TILTON, NH	508	306	143	136	48	166%	FALSE	FALSE	FALSE
01081500 MI	ERRIMACK RIVER AT FRANKLIN JUNCTION, NH	1,290	1,150	520*	551		112%		FALSE	
01082000 C0	ONTOOCOOK RIVER AT PETERBOROUGH, NH	13	18	5.5	6.3		72%	FALSE	FALSE	
01085000 C0	ONTOOCOOK RIVER NEAR HENNIKER, NH	61	117	40	37		52%	FALSE	FALSE	
	ONTOOCOOK R BL HOPKINTON DAM AT W HOPKINTON, NH	73	159	35	39		46%		FALSE	
01086000 W	ARNER RIVER AT DAVISVILLE, NH	35	20.5	6	5.3		171%	FALSE	FALSE	
01087000 BL	_ACKWATER RIVER NEAR WEBSTER, NH	36	39.5	15.5	13.7		91%	FALSE	FALSE	
01090800 PI	SCATAQUOG RIVER BL EVERETT DAM, NR E WEARE, NH	7.3	8.5	1.7	1.2		86%	FALSE	FALSE	
01091500 PI	SCATAQUOG RIVER NEAR GOFFSTOWN, NH	23	25	8	8.8		92%	FALSE	FALSE	
01092000 MI	ERRIMACK R NR GOFFS FALLS, BELOW MANCHESTER, NH	1,510	1,405	560*	644	98*	107%		FALSE	
01094000 SC	OUHEGAN RIVER AT MERRIMACK, NH	31	41	15	12.9		76%	FALSE	FALSE	
Connecticut I										
01129200 CC	ONNECTICUT R BELOW INDIAN STREAM NR PITTSBURG, NH	204	365		42	30	56%	FALSE	FALSE	FALSE
01129500 C0	ONNECTICUT RIVER AT NORTH STRATFORD, NH	552	531		176	108	104%	FALSE	FALSE	FALSE
01131500 CC	ONNECTICUT RIVER NEAR DALTON, NH	1,010	952		389	115	106%	FALSE	FALSE	FALSE
01137500 AM	MMONOOSUC RIVER AT BETHLEHEM JUNCTION, NH	77	54.5		28	21	141%	FALSE	FALSE	FALSE
01138500 CC	ONNECTICUT RIVER AT WELLS RIVER, VT	5,290	1,780		690	152*	297%		FALSE	
01144500 C0	ONNECTICUT RIVER AT WEST LEBANON, NH	4,380	1,950	380*	902	82*	225%		FALSE	
01152500 St	JGAR RIVER AT WEST CLAREMONT, NH	93	70	40	38	14	133%	FALSE	FALSE	FALSE
01154500 CC	ONNECTICUT RIVER AT NORTH WALPOLE, NH	2,150	2,410	260*	1058	115*	89%		FALSE	
01158000 AS	SHUELOT RIVER BELOW SURRY MT DAM, NEAR KEENE, NH	39	14	4.5	2.7	0.4	279%	FALSE	FALSE	FALSE
01158600 OT	TTER BROOK BELOW OTTER BROOK DAM, NEAR KEENE, NH	11	9.5	1.6	1.1	0.3	116%	FALSE	FALSE	FALSE
01160350 AS	SHUELOT RIVER AT WEST SWANZEY, NH	80	67	32			119%	FALSE		

<sup>\*</sup>Flow duration and record low mean daily flow significantly affected by reservoir operations

Source: USGS, NH DES

SUMMARY	Below	Below	Below
	0.99	7Q10	Record
	Flow?	Flow?	Flow?
FALSE =	28	32	17
TRUE =	0	0	0

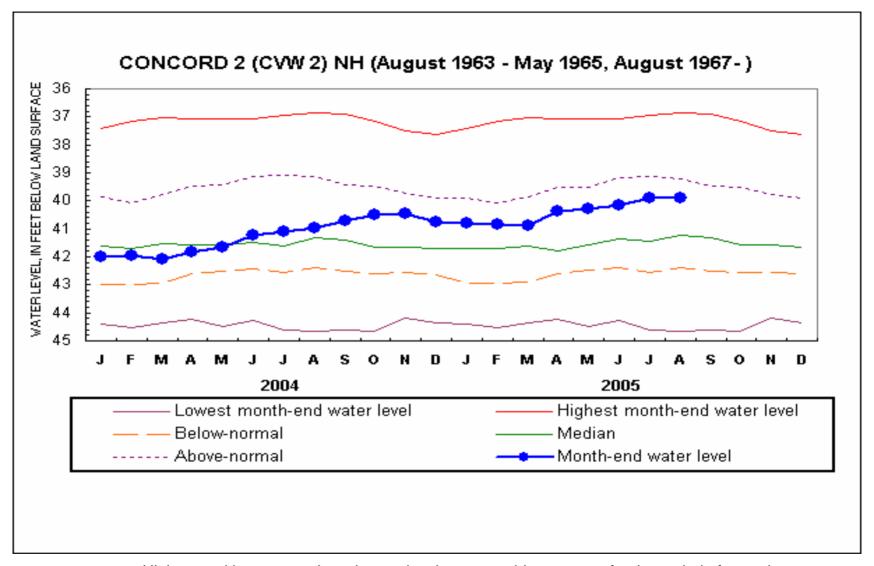
<sup>\*\*</sup>Estimated

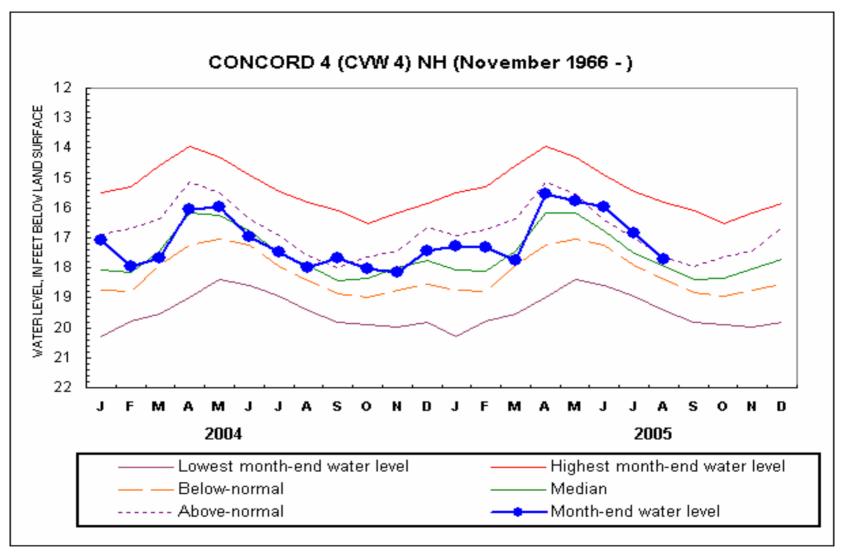
### **New Hampshire Groundwater Levels for August 2005**

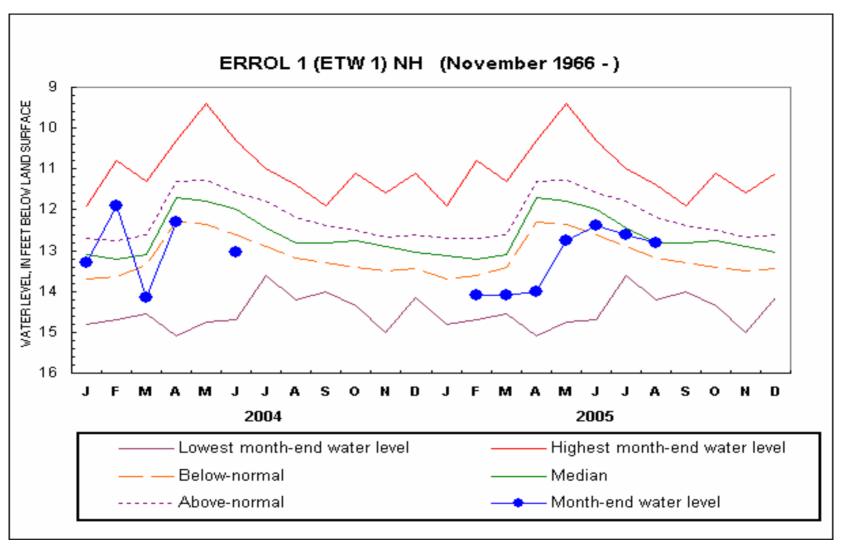


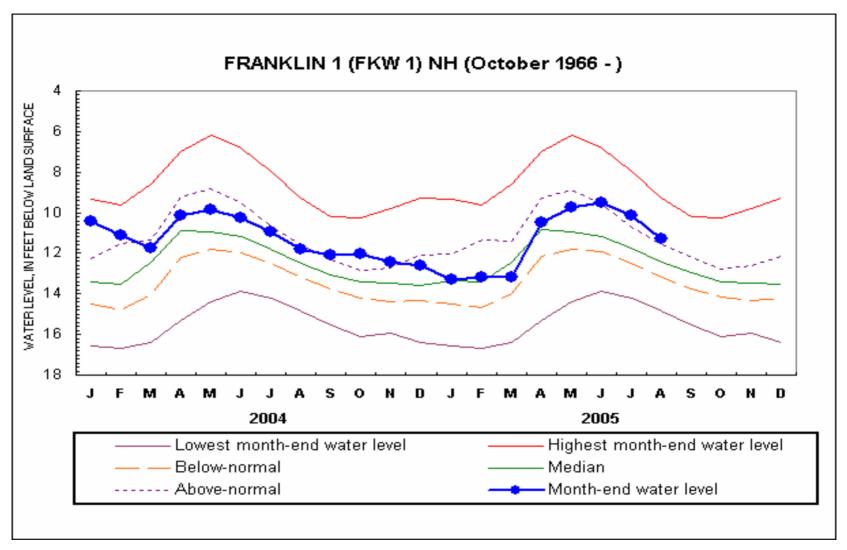
	START OF	WATER LEVEL BELOW	NET CHANGE	NET CHANGE			DEPARTURE FROM	PERCENT OF	
<u>WELL</u>	RECORD	SURFACE DATUM (ft)	IN ONE MONTH (ft)	IN ONE YEAR (ft)	<u>MEDIAN</u>	RANGE (ft)	MONTHLY MEDIAN (FT)	<u>RANGE</u>	<u>STATUS</u>
ALBANY 14	1995	7.21	-0.71	-0.39	6.98	0.79	-0.23	-29.1	NORMAL
ALBANY 15	1995	9.15	-0.62	-0.35	8.88	0.67	-0.27	-40.3	BELOW NORMAL
BARNSTEAD 10	1995	3.16	-0.33	-0.18	3.26	0.28	+0.10	35.7	ABOVE NORMAL
CAMPTON 34	1988	13.52	-1.19	-0.33	13.48	0.95	-0.04	-4.2	NORMAL
COLEBROOK 73	1995	7.97	-0.64	-0.72	8.08	3,48	0.11	3.2	NORMAL
CONCORD 2	1963	39.89	+0.03	+1.08	41.23	4.38	+1.34	30.6	NORMAL
CONCORD 4	1966	17.71	-0.86	+0.27	17.95	2.15	+0.24	11.2	NORMAL
DEERFIELD 46	1984	38.55	-0.41	+0.05	38.86	0.77	+0.31	40.3	ABOVE NORMAL
ENFIELD 30	1990	6.96	-1.95	+0.76	7.07	3.56	+0.11	3.1	NORMAL
ERROL 1	1966	12.8	-0.2		12.8	1.40	+0.0	0.0	NORMAL
FRANKLIN 1	1966	11.28	-1.13	+0.50	12.43	3.16	+1.15	36.4	ABOVE NORMAL
GREENFIELD 75	1995	59.81	-0.47	+1.07	61.43	3.83	+1.62	42.3	ABOVE NORMAL
HOOKSETT 5	1965	48.83	-0.90	+0.06	48.96	3.96	+0.13	3.3	NORMAL
KEENE 2	1963	4.01	-0.36	-0.79	4.80	2.61	+0.79	30.3	ABOVE NORMAL
LANCASTER 1	1966	2.00	+0.50	-0.40	2.23	2.04	+0.23	11.3	NORMAL
LEE 1	1953	30.97	-0.31	-0.09	31.41	0.92	+0.44	47.8	ABOVE NORMAL
LISBON 19	1990	14.73	-0.26	-0.44	14.64	0.61	-0.09	-14.8	NORMAL
NASHUA 218	1964	28.23	-0.70	-0.09	28.52	1.26	+0.29	23.0	NORMAL
NEW DURHAM 53	1986	19.60	-0.48	-0.37	19.65	0.42	+0.05	11.9	NORMAL
NEW LONDON 1	1947	10.76	-2.10	-0.26	12.28	6.36	+1.52	23.9	ABOVE NORMAL
NEWPORT 3	1995	6.71	-0.89	-0.20	6.55	0.78	-0.16	-20.5	NORMAL
NEWPORT 6	1995	6.82	-0.93	-0.21	6.61	0.80	-0.21	-26.3	NORMAL
OSSIPEE 38	1995	35.12	-0.58	+0.56	35.71	1.35	+0.59	43.7	ABOVE NORMAL
SHELBURNE 2	1995	5.50	-0.43	-0.34	5.00	0.53	-0.50	-94.3	BELOW NORMAL
WARNER 1	1965	29.33	-1.01	+1.29	30.69	1.49	+1.36	91.3	ABOVE NORMAL

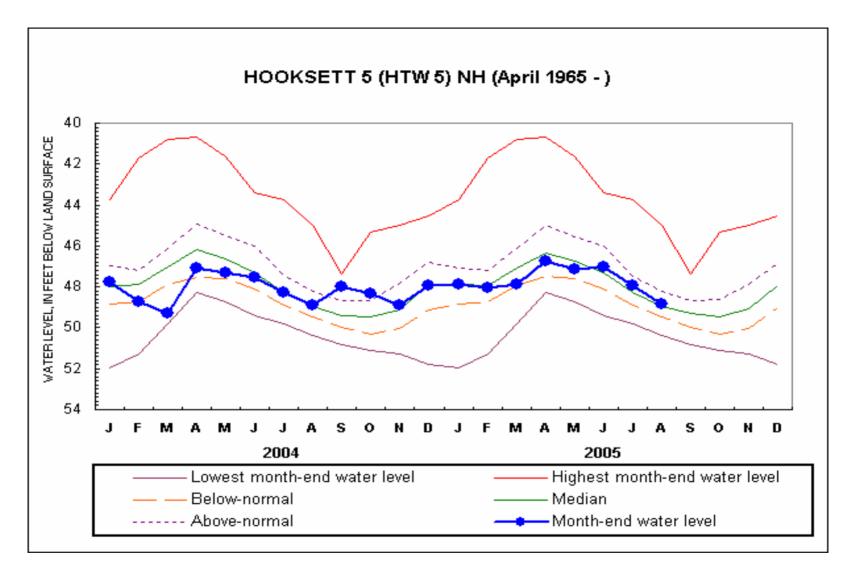
Source: USGS, NH DES

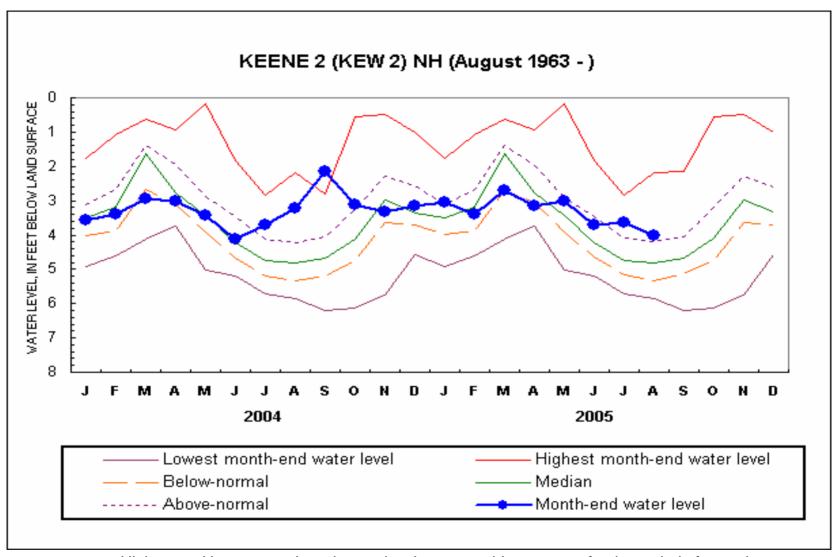


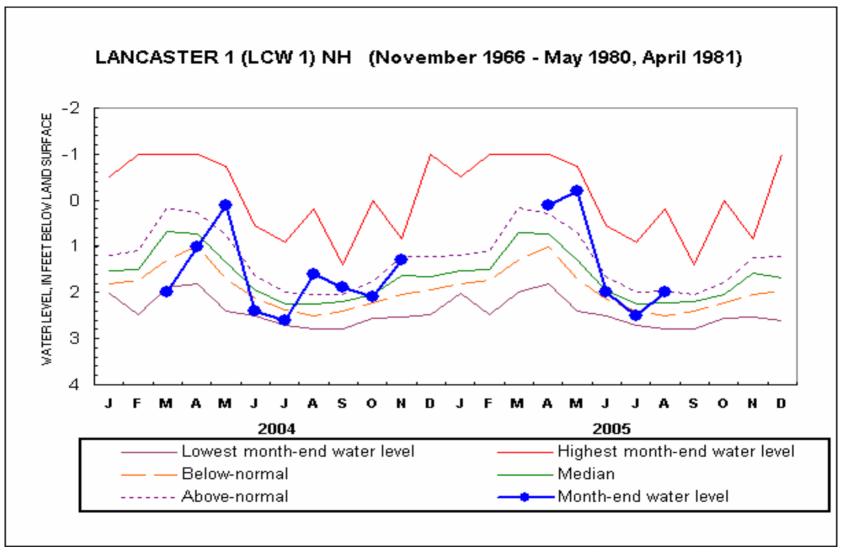


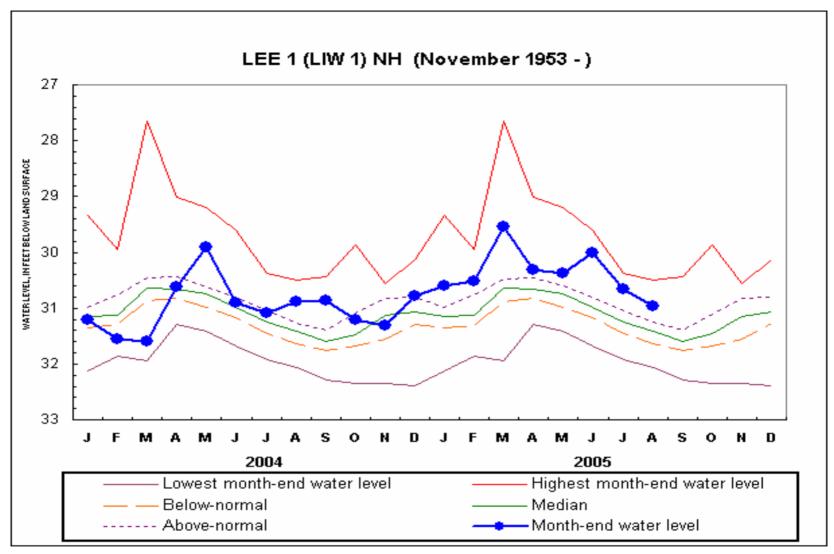


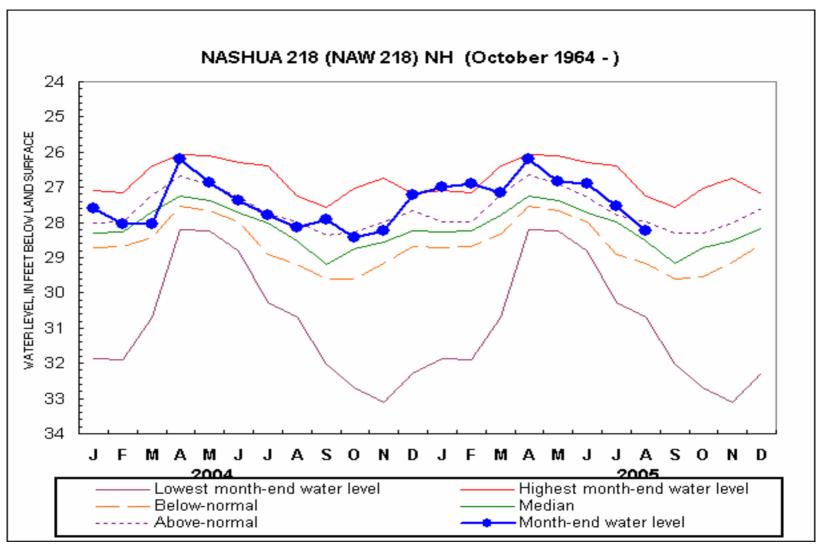


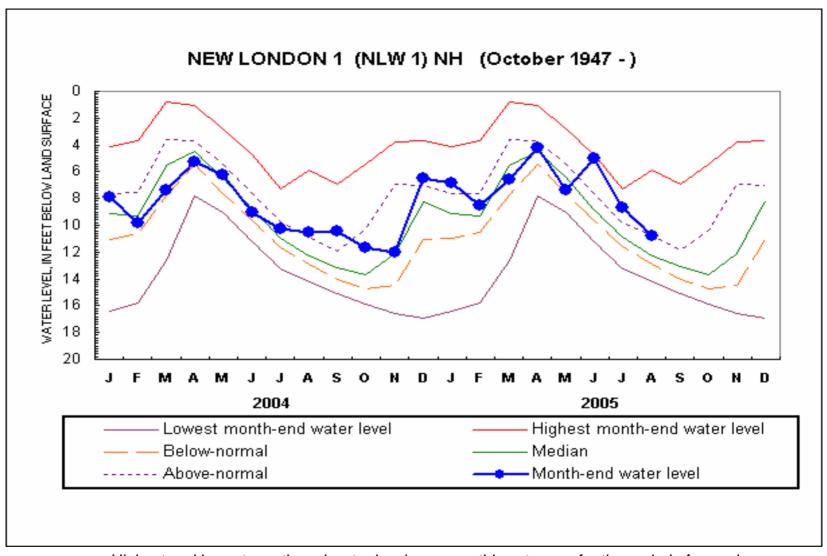


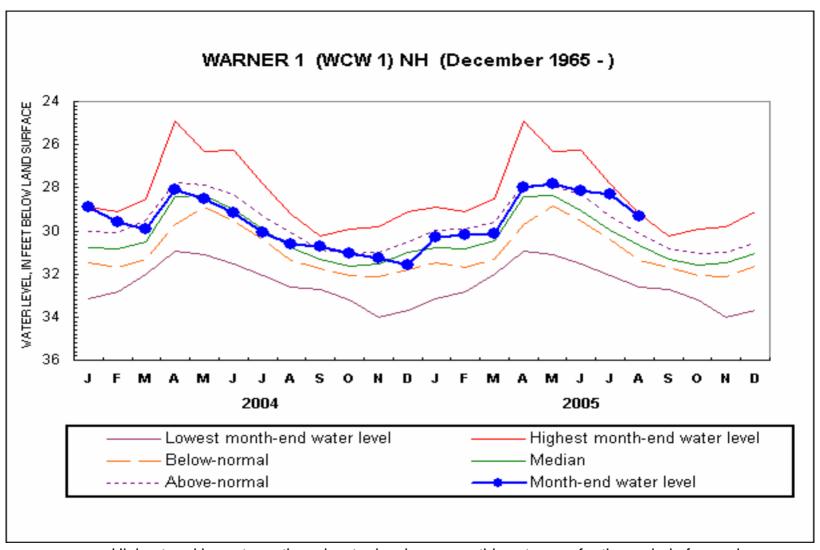




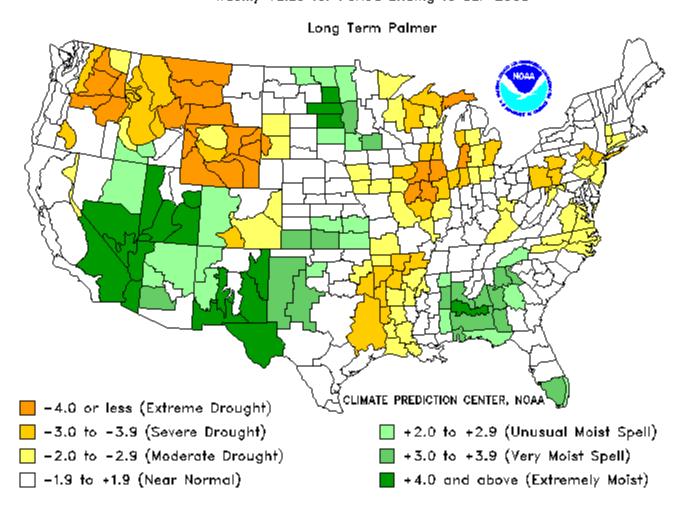








#### Drought Severity Index by Division Weekly Value for Period Ending 10 SEP 2005

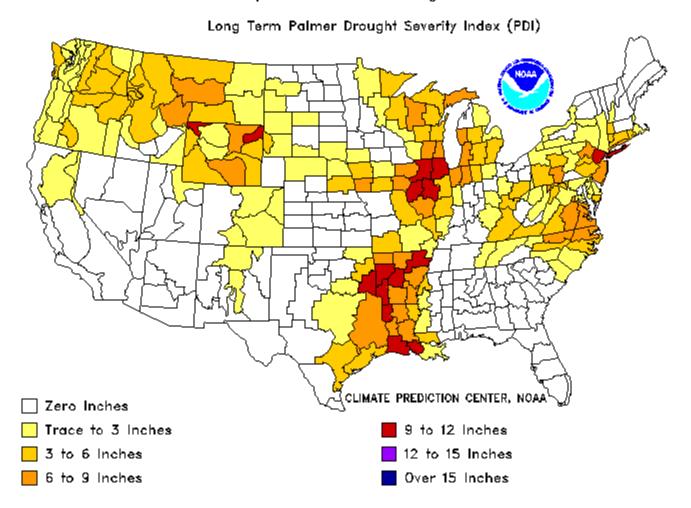


#### THE PALMER DROUGHT SEVERITY INDEX

The Palmer Index uses temperature and rainfall information in a formula to determine dryness. The advantage of the Palmer Index is that it is standardized to local climate.

Additional Precip. Needed (In.) to Bring PDI to -0.5

Weekly Value for Period Ending 10 SEP 2005



This is the amount of rainfall required in a week's time to bring the index back to zero inches required.